

ORIGINAL ARTICLE

Is Termination of Early Pregnancy Permissible for Controversial or Non-Medical Reasons? The Opinion of Final Year Students Faculty of Medicine University of Khartoum 2015.

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Abstract:

Introduction: pregnancy could be terminated therapeutically if its continuation will endanger mother's life. But there are many Situations in which early pregnancy is terminated for controversial or reasons which are strictly non medical examples:- Abortion on request (unplanned pregnancy, exposure to radiation, TORCH infection, teratogenic medicines, following rape, and existence of congenital abnormality), fetal selection, fetal reduction, some methods of birth control that interfere with implantation, and emergency contraception.

Objectives: To establish the opinion of final year medical students Faculty of Medicine University of Khartoum regarding these practices and to offer recommendations based on the findings.

Methodology: A cross sectional community based descriptive study was done at Faculty of Medicine University of Khartoum Sudan in the year 2015. The targeted population was the final year medical students. Totaling 312. Simple random sampling technique was used. The sample size was 110. Each student was given an information sheet to read before filling up the attached data sheet. Data was analyzed using SPSS version 22.

Results: the opinion of most of the respondents was overwhelmingly against both termination of early pregnancy for such reasons and also they were not prepared to carry out such procedures in the future. This was particularly striking in the response to: unplanned pregnancy, TORCH infection, treatable congenital anomalies, and fetal selection. >60% were against abortion due to use of teratogenic medicines, exposure to radiation, presence of IUD (Intra-Uterine Interceptive Device), and fetal reduction. Regarding emergency contraception only (46.7%, 54.2%) said NO to the opinion and practice of it respectively. 23.6% will not prescribe contraceptive methods which may

interfere with continuation of pregnancy, while 67.2% will prescribe them, and only 9% were not decided. 53.6% of the students want the medical council to address the issues raised in the study. 50.9% want the legal bodies to address them.

Conclusion and recommendations: the study shows that the final year medical students have a high code of medical ethics, and they consistently reject interference with human life from the moment of fertilization. The authors recommend such dilemmas to be thoroughly discussed with senior medical students, as part of their curriculum, so as to guide their steps when they start practicing on their own. Also we recommend the medical council and legal bodies that they set clear cut medical recommendations and laws to avoid subjecting practitioners to such dilemmas.

Introduction:

Definition of abortion:-

OXFORD ADVANCED LEARNER'S DICTIONARY (A-Z) definition: is the deliberate ending of a pregnancy at an early stage. ⁽¹⁾

OXFORD AMERICAN DICTIONARY definition: is the expulsion of a fetus naturally or especially by medical induction from the womb before it is able to survive independently especially in the first 28 wks of a human pregnancy. ⁽²⁾

Biological definition: the arrest of the development of an organ. ⁽³⁾

There are many medical reasons for this, but the principle is to terminate pregnancy if its continuation will lead to the mother's death or permanent ill health, or if the baby has congenital malformations which are not treatable and not compatible with extra uterine life.

Situations when early pregnancy is terminated for controversial or strict nonmedical indication examples:-

Abortion on request (unplanned pregnancy, exposure to radiation, TORCH infection⁽⁴⁾, teratogenic medicines, following rape, and existence of congenital abnormality), fetal selection⁽⁵⁾, fetal reduction⁽⁶⁾, some methods of birth control that interfere with implantation(Ten teacher gynecology 19th edition page 70 &71) ⁽⁷⁾ and emergency contraception which also interferes with implantation of fertilized ova i.e. an embryo.⁽⁷⁾

The need to terminate pregnancy for such reasons poses a dilemma for practicing doctors. The medical students need to be prepared to cope with such dilemmas. Some of these practices are permissible in some countries including the Sudan. ⁽⁸⁾

Objectives:

To establish the opinion of final year medical students Faculty of Medicine University of Khartoum regarding these practices and to offer recommendations based on the findings.

Methodology:

A cross sectional community based descriptive study was done at Faculty of Medicine University of Khartoum Sudan in the year 2015.

The targeted population was the final year medical students. Totaling 312. Simple random sampling technique was used. The sample size was calculated using this formula:

$$n = \frac{NZ^2P(1-P)}{Nd^2 + Z^2(1-P)}$$
$$n = \frac{312 * 1.96 * 1.96 * 0.5(1-0.5)}{312 * 0.05 * 0.05 + 1.96 * 1.96(1-0.5)} = 110.651$$

n ≡ Sample size Z ≡ Standard error N ≡ Study population
d ≡ confidence level 5% (0.05) P ≡ prevalence (0.5).

The sample size was 110, 80 females (out of a total of 234) and 30 males (out of a total of 78) responded. Each student was given an information sheet to read before filling up the attached data sheet which included all the relevant issues.

The data sheet consisted of two questions about each practice. :-

- a- Do you think this is an acceptable reason for terminating an early pregnancy?
- b- Would you as a doctor be prepared to carry out termination of such pregnancy?

Data was analyzed using SPSS version 22

Note: Opinion: indicates what the respondent think about the issue in the question.

Practice: If the respondent is prepared to carry out the procedure.

Results:

The results are fully shown by the following figures:

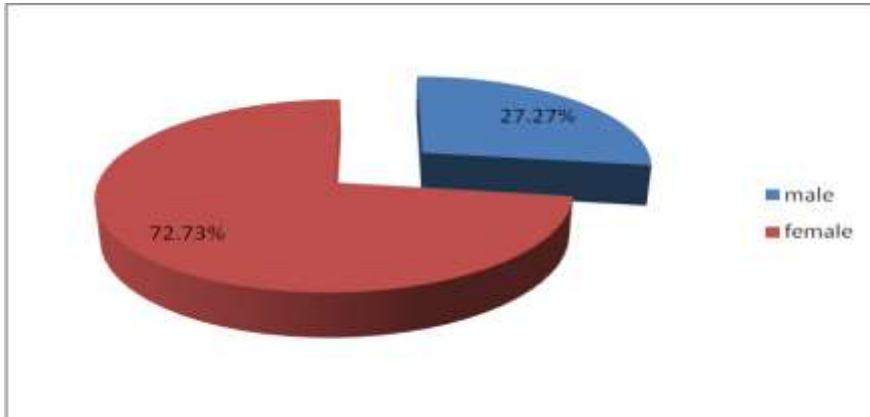
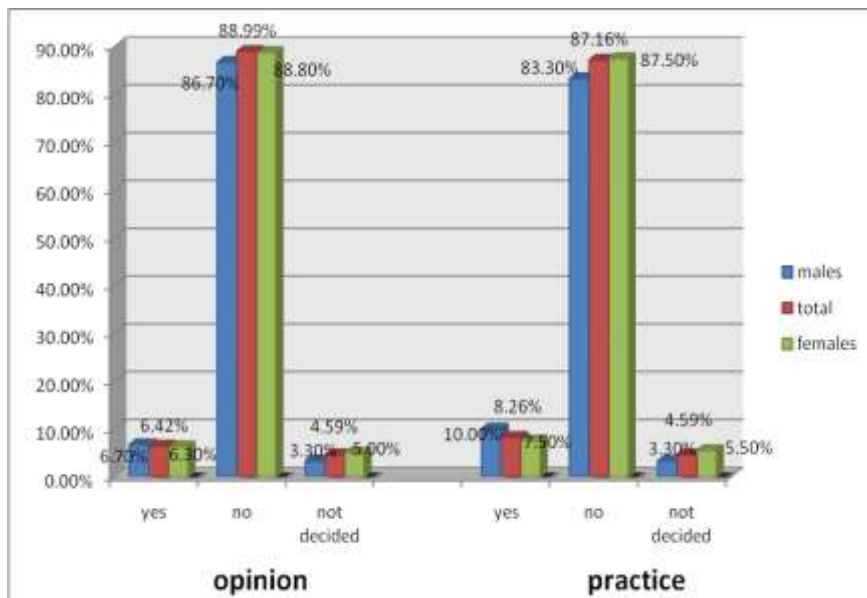


Figure (1): Gender distribution.



Figure(2): opinion of the total final year medical student faculty of medicine university of Khartoum regarding the permissibility of terminating an early unplanned pregnancy and their willingness to carry out the procedure and the

gender distribution.

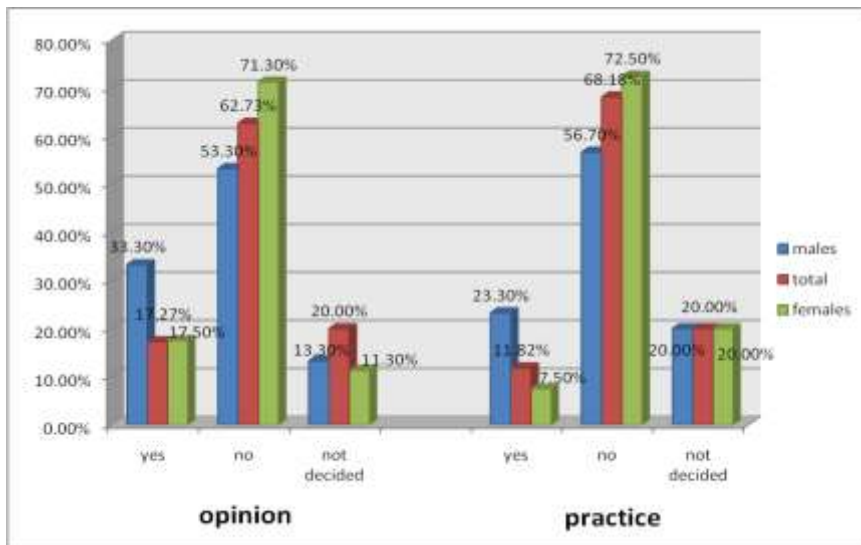


Figure (3): opinion of study population on terminating an early pregnancy because of presence of intrauterine interceptive device and their willingness to carry it out themselves. The gender distribution is also shown.

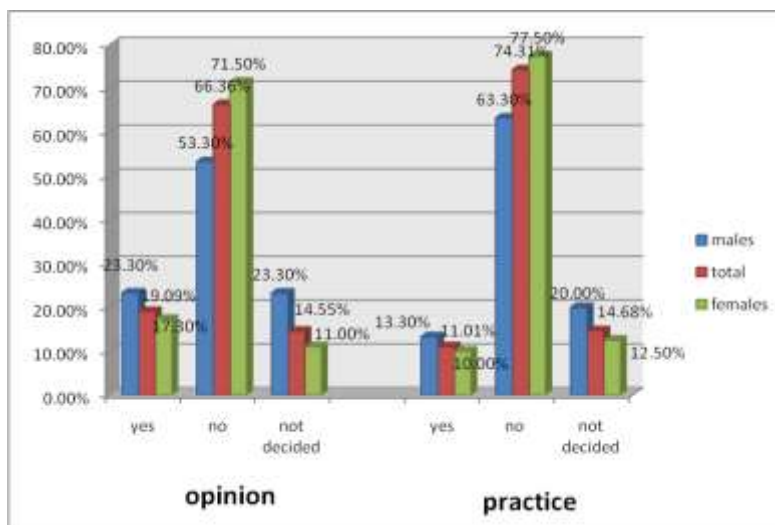
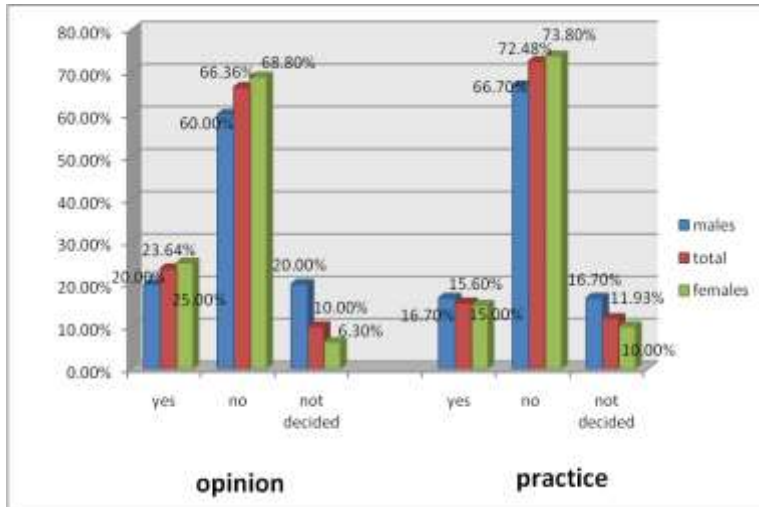


Figure (4): opinion of study population on terminating an early pregnancy because of exposure to radiation and their willingness to carry it out themselves. The gender distribution is also shown.



Figure(5): opinion of study population on terminating an early pregnancy because of ingested teratogenic medicines and their willingness to carry it out themselves. The gender distribution is also shown.

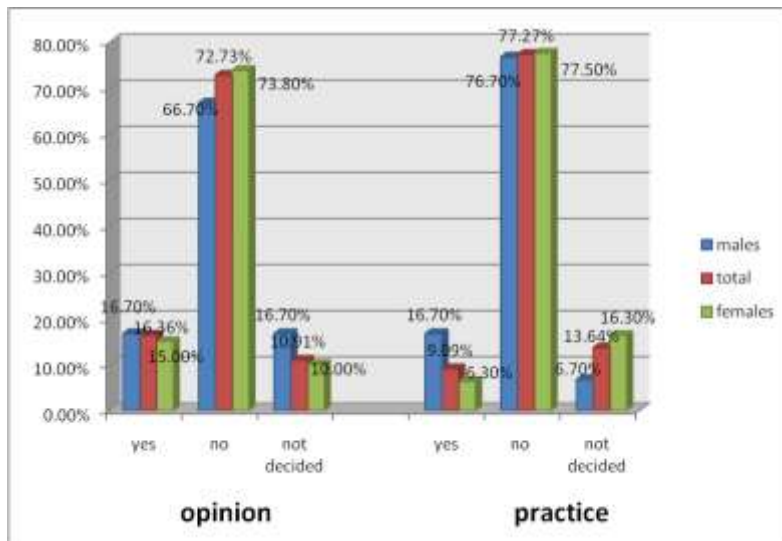


Figure (6): opinion of study population on terminating an early pregnancy because of TORCH infection and their willingness to carry it out themselves. The gender distribution is also shown.

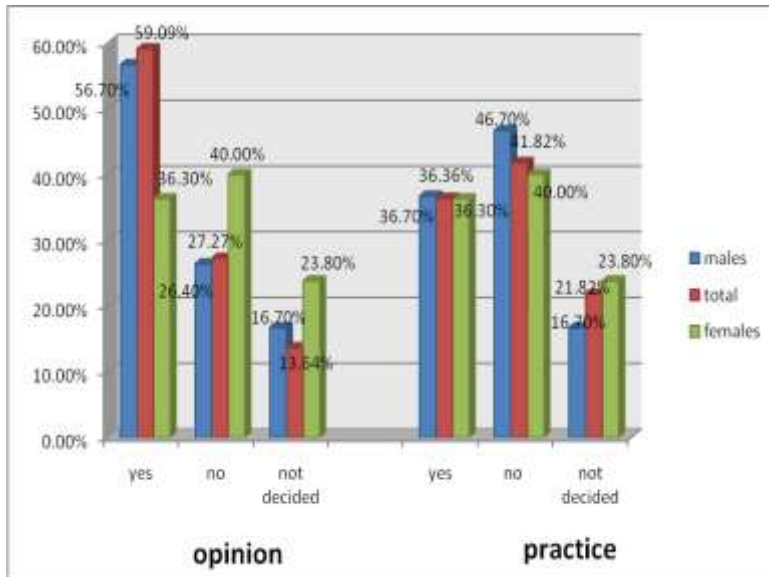


Figure (7): opinion of study population on terminating an early pregnancy because of rape and their willingness to carry it out themselves. The gender distribution is also shown.

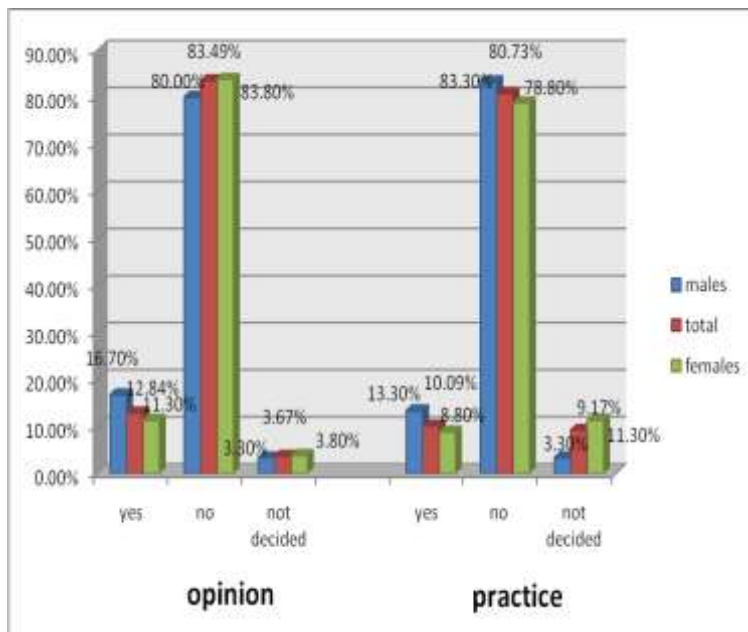


Figure (8): opinion of study population on terminating an early pregnancy because of Treatable congenital anomalies and their willingness to carry it out themselves.

The gender distribution is also shown.

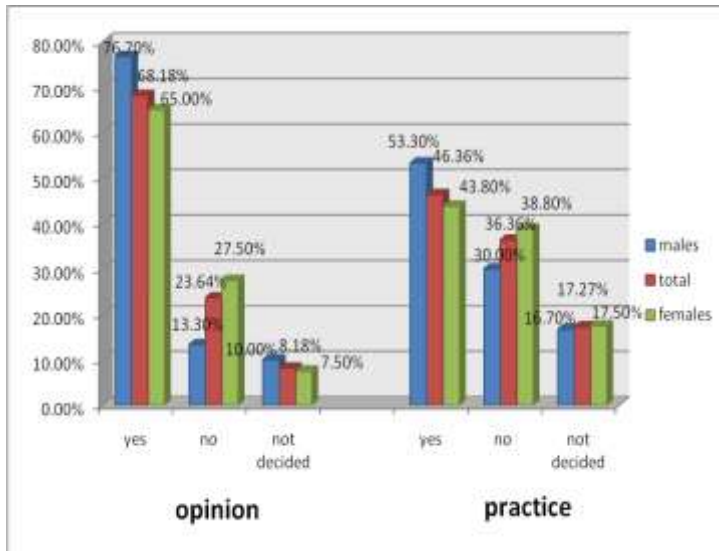


Figure (9): opinion of study population on terminating an early pregnancy in case of untreatable and non compatible with life and their willingness to carry it out themselves. The gender distribution is also shown.

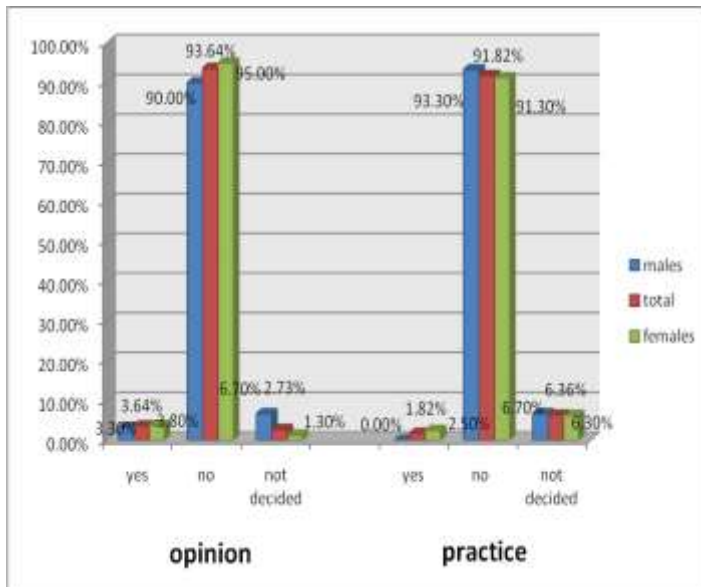


Figure (10): opinion of study population on terminating an early pregnancy because of fetal selection and their willingness to carry it out themselves. The

gender distribution is also shown.

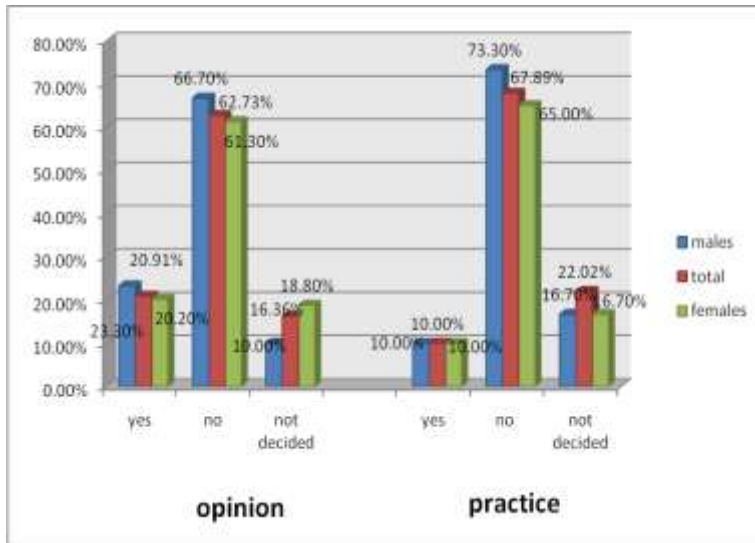


Figure (11): opinion of study population on terminating an early pregnancy because of fetal reduction and their willingness to carry it out themselves. The gender distribution is also shown.

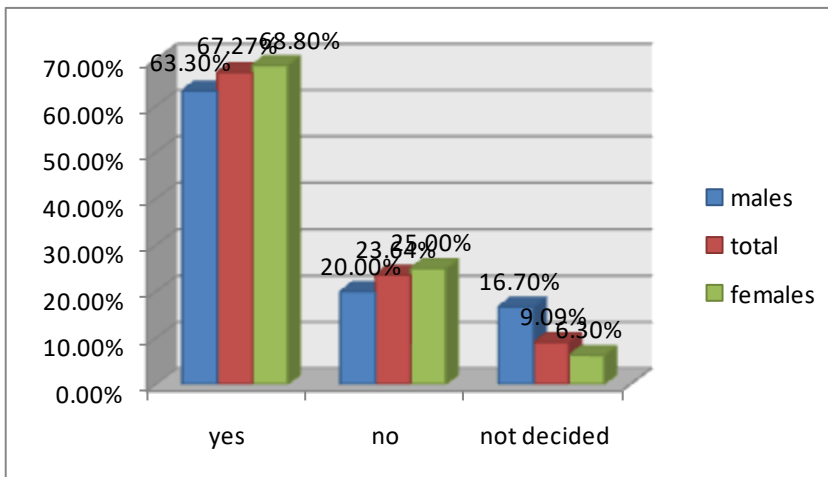


Figure (12): willingness of study population to prescribe contraceptive methods which may not prevent fertilization or which interfere with continuation of pregnancy. The gender distribution is also shown.

This unexpected response needs to be investigated in a future study.

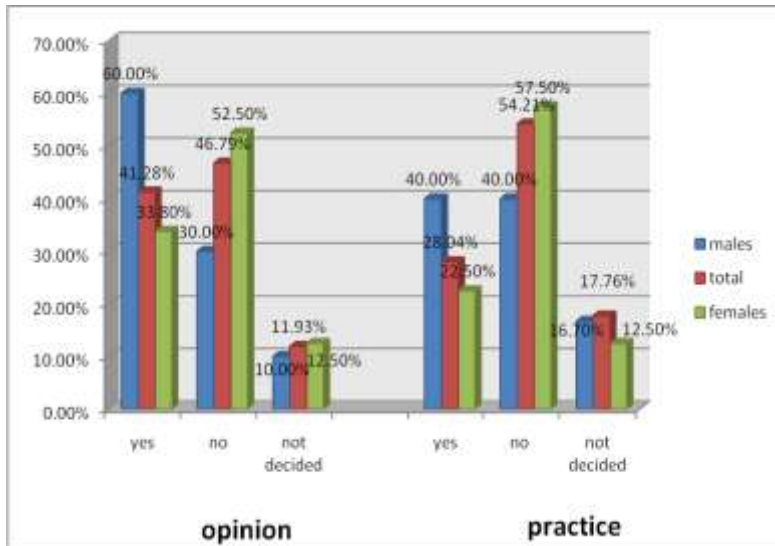


Figure (13): opinion of the study population on resorting to emergency contraception following unprotected coitus and their willingness to carry it out themselves. The gender distribution is also shown.

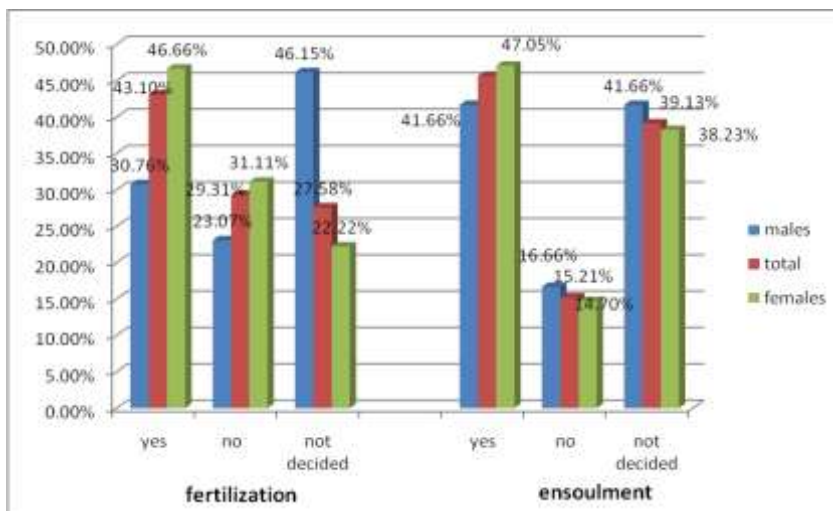


Figure (14): opinion of study population on whether human life starts from the moment of fertilization or after ensoulment. The gender distribution is also shown.

Note: regarding the start of human life from the moment of fertilization or ensoulment, total number of students answering this question were 110, 46 were answering both yes or both no so those ones were discarded, 18 didn't answer the ensoulment question, 6 didn't answer fertilization question, of those 3 answered neither . The remaining showed in the above figure.

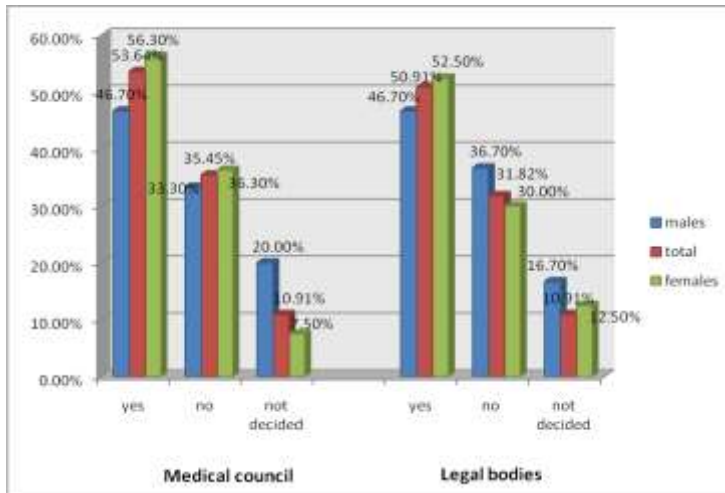


Figure (15): opinion of study population regarding the need of the Medical Council and legal bodies to address the issues raised in the study. The gender distribution is also shown.



Figure (16): opinion of study population on their stimulation to pursue these issues further legally and professionally. The gender distribution is also shown.

Discussion:

Opinion of medical students regarding many issues in obstetrics and gynecology which poses a dilemma.

Their opinions are clear from the figures shown above.

We targeted final year medical student because they are about to qualify and to be involved in practice of medicine and because they are puritan and their opinion is not colored by other life stresses and temptations.

When does viability take place?

- a) In Sudan: 28 weeks gestation.
- b) In developed countries: 24 weeks or 500 gm ⁽⁷⁾
- c) In Islamic view: 6 Hijri months or 177 day ⁽⁹⁾

Relation of human life to ensoulment (نفخ الروح):40 days or 120 days in Islam according to two different Hadiths. ⁽¹⁰⁾

When does human life start?

Human life starts at the moment of fertilization of human ovum by human sperm including in vitro fertilization. This fertilized ovum naturally develops into a full human unless interfered with by any means which arrest this process. This is termination of human life at its very beginning. It is therefore an act of abortion. In both Islam and Christianity the preservation of the fertilized ovum is mandatory.

Medical indications for termination of pregnancy:

There are many reasons for this, but the principle is to terminate pregnancy if its continuation will lead to the mother's death or permanent ill health, or if the baby has congenital malformations which are not treatable and not compatible with extra uterine life.

On taking the oath the doctor swears to Allah to preserve human life from the moment of fertilization hence-forward in all situations and circumstances. ⁽¹¹⁾

According to the regulations and instructions of Sudan Medical Council, the termination of pregnancy by abortion should be done on agreement of two qualified doctors. ⁽¹²⁾

Situations when pregnancy is terminated for non-medical reasons:

- 1- Abortion on request(rare) is not common in Sudan, however some situations in which the mother request abortion:

- a. If the pregnancy was not planned and not welcomed for social reasons e.g. large family size.
 - b. If the pregnancy occurs in spite of the presence of an intrauterine interceptive device and the mother thinks that the baby will be congenitally malformed.
 - c. Some mothers are worried about the terratogenic effect of exposure to radiation.
 - d. Also some mothers are worried about the terratogenic effect of some medicines if taken in early pregnancy.
 - e. also If the mother contracts German measles or any other TORCH infection very early in pregnancy and thinks that the baby will have congenital malformation. The incidence of perinatal TORCH in US range from 0.1 to 0.5 per 1000 birth for HSV and syphilis (4), 0.1-0.2 per 1000 birth for toxoplasma (13), 1% for CMV (14) and approaching zero for rubella. Some of these malformations are treatable or compatible with extra uterine life.
 - f. If the pregnancy followed rape (It is difficult to decide if pregnancy followed rape or was consensual in most of cases): The criminal law states that therapeutic abortion may be performed if the pregnancy followed rape and the baby (fetus)is not more than 90 days old, and the mother wanted abortion to be performed on her. (15)
 - g. If there is an existing congenital abnormality.
 - i. Treatable or compatible with extra uterine life
 - ii. Not treatable or incompatible with extra uterine life
- 2- Fetal selection: this is done when the parents choose to have either a baby boy or girl (usually boy) especially in countries where only one child per family is allowed e.g. In China the sex of the baby is determined by ultrasound and if it is not the requested baby then abortion is carried out. Lately a second baby was allowed in china. The current practice is to perform abortion between 12-14 weeks (5).
- 3- Fetal reduction: this is done in cases of assisted reproduction when hyper stimulation of the ovaries is carried out to produce a large number of ova which are then fertilized in vitro. Then a large number of fertilized ova are introduced into the uterus to ensure implantation of some ova. When >2

ova implant it is claimed that the continuation of pregnancy causes a risk to the mother and babies (6). Therefore only two embryos are allowed to live and others are killed by intracardiac injection of potassium chloride under ultrasound guidance (16). The fertilized ova (embryo) which are not introduced into the uterus are either frozen for future use or are left behind to expire. In some countries the excess fertilized ova are used for gene therapy or research purposes. In some clinics e.g. in America they are sold to the interested bodies. In both Islam and Christianity the preservation of fertilized ova is mandatory.

a. In Islam:

(إِنَّا خَلَقْنَا الْإِنْسَانَ مِنْ نُطْفَةٍ أَمْشَاجٍ نَبْتَلِيهِ فَجَعَلْنَاهُ سَمِيعًا بَصِيرًا) سورة الإنسان الآية (2) .. أمشاج: خليط بين نطفة الرجل ونطفة المرأة.. وهذه إشارة إلى الجمع بين كروموسومات الرجل والمرأة. عن عبد الله بن مسعود رضي الله عنه قال : حدثنا رسول الله صلى الله عليه وسلم وهو الصادق المصدوق : إن أحدكم يجمع خلقه في بطن أمه أربعين يوما نطفة ، ثم يكون علقة مثل ذلك ، ثم يكون مضغة مثل ذلك ، ثم يرسل الله إليه الملك ، فينفخ فيه الروح ويؤمر بأربع كلمات : بكتب رزقه وعمله وأجله وشقي أو سعيد ، فوالله الذي لا إله غيره إن أحدكم ليعمل بعمل أهل الجنة حتى ما يكون بينه وبينها إلا ذراع ، فيسبق عليه الكتاب فيعمل بعمل أهل النار فيدخلها ، وإن أحدكم ليعمل بعمل أهل النار حتى ما يكون بينه وبينها إلا ذراع ، فيسبق عليه الكتاب فيعمل بعمل أهل الجنة فيدخلها رواه البخاري ومسلم (10)

b. Christianity: the Charter of the Rights of the Family, published by the Holy See, confirmed that "Human life must be absolutely respected and protected from the moment of conception".⁽¹⁷⁾

4- Methods of birth control, they are devices or medicines which do not prevent ovulation in some cases and hence fertilization but interfere with the implantation of the fertilized ova or the continuation of pregnancy(Ten teacher gynecology 19th edition page 70 and71) ⁽⁷⁾, they include:

- i. Intrauterine interceptive device (the loop).
- ii. Progesterone only pills
- iii. Progesterone injections
- iv. Implants

5- Emergency contraception ⁽⁷⁾: This procedure refer to prevention of fertilized ovum after un protected sexual intercourse by high dose of the contraceptive pills or fitting an intrauterine interceptive device or suction

curettage within 48 hrs of intercourse. This is not common here but the doctors must be prepared for such situation.

In case of abortion due to presence IUID p value showed statistically significant differences between males & females opinion & practice. (P value regarding opinion: 0.022, regarding practice 0.06)

It is noticed that vast majority are very strongly against fetal selection or fetal reduction.

It is understandable that some of the respondents were undecided in their attitude regarding the dilemmas put forward to them as they have not been practically exposed to these dilemmas.

In congenital anomalies some are untreatable but compatible with life like Down syndrome and some are not treatable and not compatible with life as in uncephalic babies who can live for few minutes after birth and then they die. We can terminate this pregnancy if the parents consented to. Some mothers refuse termination of such a pregnancy because their babies are entitled to inherit even if they live for only a few minutes.

It is noted that the Medical Council approves therapeutic abortion only when it is necessary to save the mother's life ⁽¹²⁾, while the criminal law states that therapeutic abortion may be performed if the pregnancy followed rape and the baby (fetus) is not more than 90 days, and the mother wanted abortion to be performed on her. ⁽¹⁵⁾

Termination of an intact pregnancy is a major invasive procedure.

It is fraught with serious maternal health dangers both physical and mental no matter how early is the pregnancy.

Even if carried by experienced personnel under perfect surgical precautions and blood transfusion services.

Infection is menacing.

Safe abortion "is a myth".

It is a destruction of human life in its early stage it is a harrowing termination of human life.

Conclusion and Recommendations:

This study investigated many medical, legal, ethical, and religious approaches to some of the medical dilemmas which are likely to face the medical practitioners.

It shows that the final year students in the Faculty of Medicine University of Khartoum have a high code of medical ethics, and they consistently reject interference with human life from the moment of fertilization. Although this is reassuring, yet the authors are of the opinion that such dilemmas need to be thoroughly discussed with senior medical students, as part of their curriculum, so as to guide their steps when they start practicing on their own.

The authors recommend the Medical Council and legal bodies to set clear cut medical recommendations and laws to avoid subjecting practitioners to such dilemmas. Also avoiding any discrepancies between the laws of the land and the recommendations of the medical council.

Acknowledgement:

We are thankful to the sixth year students of the Faculty of Medicine University of Khartoum who gracefully co-operated with us and made this study possible.

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